

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

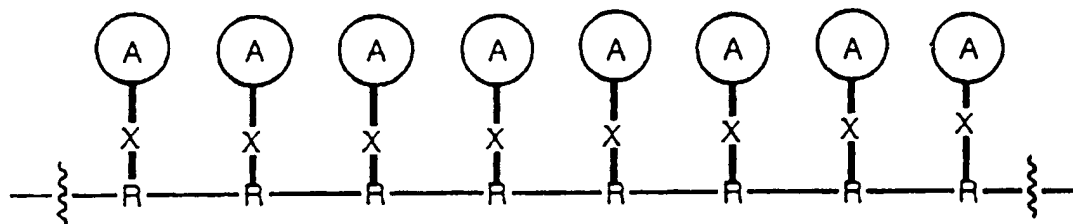
1-16 (Canceled)

17. (Currently amended) An antiviral compound comprising a linear, non-carbohydrate polymer having a plurality of side chain groups, wherein at least one of said side chain groups has an ~~anionic or cationic-containing~~ anionic-containing moiety bonded or linked thereto, wherein said anionic-containing moiety is selected from the group consisting of:

- (i) ~~aryl or arylalkyl anionic moieties;~~
- (ii) ~~heteroaryl or heteroarylalkyl anionic moieties; and~~
- (iii) ~~neuraminic or sialic acid-containing moieties which are modified by substitution in the 4-position thereof; and~~
- (ii) sialic acid-containing moieties which are modified by substitution in the 4-position thereof

~~and said cationic-containing moiety is a quaternary nitrogen-containing moiety.~~

18. (Previously presented) An antiviral compound according to claim 17, comprising a linear polymer of the formula:



wherein:

R is a non-carbohydrate monomer unit forming a linear polymer backbone;

X is an optional linking group on the side chain groups of monomer units R; and

A is an anionic-containing moiety as defined in claim 17.

19. (Previously presented) The antiviral compound according to claim 18, wherein said linear polymer has a median range of molecular weight distribution from 1,000 to 1,000,000.

20. (Previously presented) The antiviral compound according to claim 19, wherein said median range of molecular weight distribution is from 10,000 to 600,000.

21. (Previously presented) The antiviral compound according to claim 18, wherein said monomer unit R is an amine moiety or an amide moiety.

22. (Previously presented) The antiviral compound according to claim 21, wherein said monomer unit R is an amino acid.

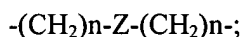
23. (Previously presented) The antiviral compound according to claim 22, wherein said amino acid is lysine.

24. (Previously presented) The antiviral compound according to claim 18, wherein said linking group X is a functional linking group selected from the group consisting of an ester, an amide, an ether, a thioether, an amine, an urea, a thiourea, a carbamate and a carbonate.

25. (Previously presented) The antiviral compound according to claim 18, wherein said linking group X is a spacer group selected from the group consisting of an alkyl chain, a branched alkyl chain, an alkoxy chain, a polyalkoxy chain, an alkylthio chain, a polyalkylthio chain, an alkenyl chain, a multiple alkenyl chain, an alkynyl chain, and a multiple alkynyl chain.

26. (Previously presented) The antiviral compound according to claim 25, wherein said linking group X is a substituted chain.

27. (Previously presented) The antiviral compound according to claim 18, wherein said linking group X is a group of the formula:



wherein Z is selected from the group consisting of $-\text{CH}_2-$, $-\text{CH}=\text{CH}-$, $-\text{C}\equiv\text{C}-$, $-\text{O}-$ and $-\text{S}-$, and wherein n is an integer of from 1 to 15.

28. (Previously presented) The antiviral compound of claim 17, wherein said anionic- or cationic-containing moiety is bonded by an amide or a thiourea linkage to a reactive functional side chain group of said linear polymer.

29. (Previously presented) The antiviral compound of claim 28, wherein said reactive functional side chain group is selected from the group consisting of an amine group, a sulfonyl group, and a hydroxy group.

30. (Currently amended) The antiviral compound according to claim 17, wherein ~~said anionic containing moiety is selected from the group consisting of~~

~~at least one sulfonic acid containing moiety;~~

~~at least two carboxylic acids containing moiety;~~

~~at least one neuraminic acid containing moiety modified by substitution in the 4 position thereof;~~

~~at least one sialic acid containing moiety modified by substitution in the 4 position thereof;~~

~~at least one boronic acid containing moiety;~~

~~at least one phosphoric acid containing moiety;~~

~~at least one phosphonic acid containing moiety;~~

~~at least one esterified phosphoric acid containing moiety; and~~

~~at least one esterified phosphonic acid containing moiety~~ the substituent in the 4-position of said neuraminic acid-containing moieties or said sialic acid-containing moieties is selected from the group consisting of amino acids, cyano, azido and guanidino groups.

31. (Canceled)

32. (Canceled)

33. (Previously presented) A pharmaceutical composition for preventing or treating a viral infection of an animal comprising a compound of claim 17 and a pharmaceutically acceptable carrier or diluent.

34. (Previously presented) A method for preventing or treating a viral infection of an animal comprising administering to said animal an amount of the compound of claim 17 sufficient to prevent or treat said viral infection.

35. (Previously presented) The method according to claim 34, wherein said viral infection is caused by a virus selected from the group consisting of HIV-1, HIV-2, hepatitis B virus, hepatitis C virus, bovine viral diarrhoea virus, Japanese encephalitis virus (JEV), human influenza virus A, human influenza virus B, rhinovirus, corona virus, human parainfluenza virus, respiratory syncytial virus (RSV), varicella zoster virus VZV, human cytomegalovirus (CMV), Epstein Barr virus (EBV), human papilloma virus (HPV), adenovirus, herpes simplex virus (HSV) type 1, herpes simplex virus (HSV) type 2, measles virus, and vesicular stomatitis virus (VSV).

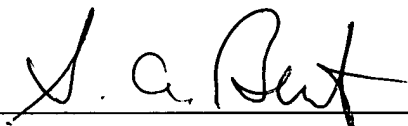
36. (Previously presented) A process for making a composition useful in preventing or treating a viral infection comprising combining the compound of claim 17 with pharmaceutically acceptable carrier or diluent.--

Applicants believe that this Response complies with 37 C.F.R. §1.121. Should there be any questions regarding this application, the Examiner is invited to contact the undersigned attorney at the phone number listed below.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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